

## SEQUENCE LISTING

<110> Climent-Johansson, Isabel  
Enerback, Sven

<120> PROTEIN COMPLEXES

<130> 13425-102US1

<140> US 10/500,941

<141> 2004-07-08

<150> PCT/SE03/00139

<151> 2003-01-28

<150> US 60/377,349

<151> 2002-04-30

<150> SE 0200265-7

<151> 2002-01-29

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<170> FastSEQ for Windows Version 4.0

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<212> PRT

<213> Homo sapiens

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Pro Tyr Leu Ser Glu Gln Asn Tyr Tyr Arg Ala Ala Gly Ser Tyr Gly
      20             25             30
Gly Met Ala Ser Pro Met Gly Val Tyr Ser Gly His Pro Glu Gln Tyr
      35             40             45
Ser Ala Gly Met Gly Arg Ser Tyr Ala Pro Tyr His His His Gln Pro
 50             55             60
Ala Ala Pro Lys Asp Leu Val Lys Pro Pro Tyr Ser Tyr Ile Ala Leu
65             70             75             80
Ile Thr Met Ala Ile Gln Asn Ala Pro Glu Lys Lys Ile Thr Leu Asn
      85             90             95
Gly Ile Tyr Gln Phe Ile Met Asp Arg Phe Pro Phe Tyr Arg Glu Asn
      100            105            110
Lys Gln Gly Trp Gln Asn Ser Ile Arg His Asn Leu Ser Leu Asn Glu
      115            120            125
Cys Phe Val Lys Val Pro Arg Asp Asp Lys Lys Pro Gly Lys Gly Ser
      130            135            140
Tyr Trp Thr Leu Asp Pro Asp Ser Tyr Asn Met Phe Glu Asn Gly Ser
      145            150            155            160
Phe Leu Arg Arg Arg Arg Arg Phe Lys Lys Lys Asp Val Ser Lys Glu
      165            170            175
Lys Glu Glu Arg Ala His Leu Lys Glu Pro Pro Pro Ala Ala Ser Lys
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Gly Ala Pro Ala Thr Pro His Leu Ala Asp Ala Pro Lys Glu Ala Glu

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[illegible]

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<212> PRT
<213> Homo sapiens
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			20					25					30		
Tyr	Glu	Ala	Glu	Phe	Gln	Val	Lys	Ile	Thr	Ala	Lys	Gly	Asp	Ile	Asn
		35					40					45			
Gln	Lys	Leu	Gln	Lys	Val	Ile	Gln	Trp	Leu	Leu	Glu	Glu	Lys	Leu	Cys
	50					55					60				
Ala	Leu	Gln	Cys	Ala	Val	Phe	Asp	Lys	Thr	Leu	Ala	Glu	Leu	Lys	Thr
65					70					75					80
Arg	Val	Glu	Lys	Ile	Glu	Cys	Asn	Lys	Arg	His	Lys	Thr	Val	Leu	Thr

				85					90					95			
Glu	Leu	Gln	Ala	Lys	Ile	Ala	Arg	Leu	Thr	Lys	Arg	Phe	Glu	Ala	Ala		
			100					105					110				
Lys	Glu	Asp	Leu	Lys	Lys	Arg	His	Glu	His	Pro	Pro	Asn	Pro	Pro	Val		
		115					120					125					
Ser	Pro	Gly	Lys	Thr	Val	Asn	Asp	Val	Asn	Ser	Asn	Asn	Asn	Met	Ser		
	130					135				140							
Tyr	Arg	Asn	Ala	Gly	Thr	Val	Arg	Gln	Met	Leu	Glu	Ser	Lys	Arg	Asn		
145					150					155					160		
Val	Ser	Glu	Ser	Ala	Pro	Pro	Ser	Phe	Gln	Thr	Pro	Val	Asn	Thr	Val		
			165						170					175			
Ser	Ser	Thr	Asn	Leu	Val	Thr	Pro	Pro	Ala	Val	Val	Ser	Ser	Gln	Pro		
			180						185				190				
Lys	Leu	Gln	Thr	Pro	Val	Thr	Ser	Gly	Ser	Leu	Thr	Ala	Thr	Ser	Val		
	195						200					205					
Leu	Pro	Ala	Pro	Asn	Thr	Ala	Thr	Val	Val	Ala	Thr	Thr	Gln	Val	Pro		
	210					215					220						
Ser	Gly	Asn	Pro	Gln	Pro	Thr	Ile	Ser	Leu	Gln	Pro	Leu	Pro	Val	Ile		
225					230					235					240		
Leu	His	Val	Pro	Val	Ala	Val	Ser	Ser	Gln	Pro	Gln	Leu	Leu	Gln	Ser		
			245						250					255			
His	Pro	Gly	Thr	Leu	Val	Thr	Asn	Gln	Pro	Ser	Gly	Asn	Val	Glu	Phe		
		260					265					270					
Ile	Ser	Val	Gln	Ser	Pro	Pro	Thr	Val	Ser	Gly	Leu	Thr	Lys	Asn	Pro		
	275						280					285					
Val	Ser	Leu	Pro	Ser	Leu	Pro	Asn	Pro	Thr	Lys	Pro	Asn	Asn	Val	Pro		
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Ser	Val	Pro	Ser	Pro	Ser	Ile	Gln	Arg	Asn	Pro	Thr	Ala	Ser	Ala	Ala		
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Pro	Leu	Gly	Thr	Thr	Leu	Ala	Val	Gln	Ala	Val	Pro	Thr	Ala	His	Ser		
			325						330					335			
Ile	Val	Gln	Ala	Thr	Arg	Thr	Ser	Leu	Pro	Thr	Val	Gly	Pro	Ser	Gly		
	340						345					350					
Leu	Tyr	Ser	Pro	Ser	Thr	Asn	Arg	Gly	Pro	Ile	Gln	Met	Lys	Ile	Pro		
	355					360					365						
Ile	Ser	Ala	Phe	Ser	Thr	Ser	Ser	Ala	Ala	Glu	Gln	Asn	Ser	Asn	Thr		
	370					375					380						
Thr	Pro	Arg	Ile	Glu	Asn	Gln	Thr	Asn	Lys	Thr	Ile	Asp	Ala	Ser	Val		
385					390					395					400		
Ser	Lys	Lys	Ala	Ala	Asp	Ser	Thr	Ser	Gln	Cys	Gly	Lys	Ala	Thr	Gly		
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Ser	Asp	Ser	Ser	Gly	Val	Ile	Asp	Leu	Thr	Met	Asp	Asp	Glu	Glu	Ser		
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Gly	Ala	Ser	Gln	Asp	Pro	Lys	Lys	Leu	Asn	His	Thr	Pro	Val	Ser	Thr		
	435					440						445					
Met	Ser	Ser	Ser	Gln	Pro	Val	Ser	Arg	Pro	Leu	Gln	Pro	Ile	Gln	Pro		
	450					455					460						
Ala	Pro	Pro	Leu	Gln	Pro	Ser	Gly	Val	Pro	Thr	Ser	Gly	Pro	Ser	Gln		
465					470					475					480		
Thr	Thr	Ile	His	Leu	Leu	Pro	Thr	Ala	Pro	Thr	Thr	Val	Asn	Val	Thr		
			485					490					495				
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Pro	Ala																

<211> 524  
 <212> PRT  
 <213> Homo sapiens

<400> 3

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Gly	Gln	Lys	Arg	Thr	Tyr	Lys	Ala	Ile	Ser	Glu	Ser	Tyr	Ala	Phe	Leu
			20					25					30		
Pro	Arg	Glu	Ala	Val	Thr	Arg	Phe	Leu	Met	Ser	Cys	Ser	Glu	Cys	Gln
		35					40					45			
Lys	Arg	Met	His	Leu	Asn	Pro	Asp	Gly	Thr	Asp	His	Lys	Asp	Asn	Gly
	50					55					60				
Lys	Pro	Pro	Thr	Leu	Val	Thr	Ser	Met	Ile	Asp	Tyr	Asn	Met	Pro	Ile
65				70						75				80	
Thr	Met	Ala	Tyr	Met	Lys	His	Met	Lys	Leu	Gln	Leu	Leu	Asn	Ser	Gln
			85						90				95		
Gln	Asp	Glu	Asp	Glu	Ser	Ser	Ile	Glu	Ser	Asp	Glu	Phe	Asp	Met	Ser
			100					105					110		
Asp	Ser	Thr	Arg	Met	Ser	Ala	Val	Asn	Ser	Asp	Leu	Ser	Ser	Asn	Leu
	115						120						125		
Glu	Glu	Arg	Met	Gln	Ser	Pro	Gln	Asn	Leu	His	Gly	Gln	Gln	Asp	Asp
	130					135					140				
Asp	Ser	Ala	Ala	Glu	Ser	Phe	Asn	Gly	Asn	Glu	Thr	Leu	Gly	His	Ser
145				150						155				160	
Ser	Ile	Ala	Ser	Gly	Gly	Thr	His	Ser	Arg	Glu	Met	Gly	Asp	Ser	Asn
			165						170				175		
Ser	Asp	Gly	Lys	Thr	Gly	Leu	Glu	Gln	Asp	Glu	Gln	Pro	Leu	Asn	Leu
		180						185					190		
Ser	Asp	Ser	Pro	Leu	Ser	Ala	Gln	Leu	Thr	Ser	Glu	Tyr	Arg	Ile	Asp
	195						200					205			
Asp	His	Asn	Ser	Asn	Gly	Lys	Asn	Lys	Tyr	Lys	Asn	Leu	Leu	Ile	Ser
	210					215					220				
Asp	Leu	Lys	Met	Glu	Arg	Glu	Ala	Arg	Glu	Asn	Gly	Ser	Lys	Ser	Pro
225				230						235				240	
Ala	His	Ser	Tyr	Ser	Ser	Tyr	Asp	Ser	Gly	Lys	Asn	Glu	Ser	Val	Asp
			245						250					255	
Arg	Gly	Ala	Glu	Asp	Leu	Ser	Leu	Asn	Arg	Gly	Asp	Glu	Asp	Glu	Asp
		260						265					270		
Asp	His	Glu	Asp	His	Asp	Asp	Ser	Glu	Lys	Val	Asn	Glu	Thr	Asp	Gly
	275						280					285			
Val	Glu	Ala	Glu	Arg	Leu	Lys	Ala	Phe	Asn	Met	Phe	Val	Arg	Leu	Phe
	290					295					300				
Val	Asp	Glu	Asn	Leu	Asp	Arg	Met	Val	Pro	Ile	Ser	Lys	Gln	Pro	Lys
305				310						315				320	
Glu	Lys	Ile	Gln	Ala	Ile	Ile	Asp	Ser	Cys	Arg	Arg	Gln	Phe	Pro	Glu
			325						330				335		
Tyr	Gln	Glu	Arg	Ala	Arg	Lys	Arg	Ile	Arg	Thr	Tyr	Leu	Lys	Ser	Cys
			340					345					350		
Arg	Arg	Met	Lys	Arg	Ser	Gly	Phe	Glu	Met	Ser	Arg	Pro	Ile	Pro	Ser
		355					360					365			
His	Leu	Thr	Ser	Ala	Val	Ala	Glu	Ser	Ile	Leu	Ala	Ser	Ala	Cys	Glu
	370					375					380				
Ser	Glu	Ser	Arg	Asn	Ala	Ala	Lys	Arg	Met	Arg	Leu	Glu	Arg	Gln	Gln
385				390						395				400	
Asp	Glu	Ser	Ala	Pro	Ala	Asp	Lys	Gln	Cys	Lys	Pro	Glu	Ala	Thr	Gln
			405						410				415		

Ala Thr Tyr Ser Thr Ser Ala Val Pro Gly Ser Gln Asp Val Leu Tyr  
 420 425 430  
 Ile Asn Gly Asn Gly Thr Tyr Ser Tyr His Ser Tyr Arg Gly Leu Gly  
 435 440 445  
 Gly Gly Leu Leu Asn Leu Asn Asp Ala Ser Ser Ser Gly Pro Thr Asp  
 450 455 460  
 Leu Ser Met Lys Arg Gln Leu Ala Thr Ser Ser Gly Ser Ser Ser Ser  
 465 470 475 480  
 Ser Asn Ser Arg Pro Gln Leu Ser Pro Thr Glu Ile Asn Ala Val Arg  
 485 490 495  
 Gln Leu Val Ala Gly Tyr Arg Glu Ser Ala Ala Phe Leu Leu Arg Ser  
 500 505 510  
 Ala Asp Glu Leu Glu Asn Leu Ile Leu Gln Gln Asn  
 515 520

<210> 4  
 <211> 586  
 <212> PRT  
 <213> Homo sapiens

<400> 4  
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 Met Val Val Asn Asp Ala Gly Arg Pro Lys Val Gln Val Glu Tyr Lys  
 35 40 45  
 Gly Glu Thr Lys Ser Phe Tyr Pro Glu Glu Val Ser Ser Met Val Leu  
 50 55 60  
 Thr Lys Met Lys Glu Ile Ala Glu Ala Tyr Leu Gly Lys Thr Val Thr  
 65 70 75 80  
 Asn Ala Val Val Thr Val Pro Ala Tyr Phe Asn Asp Ser Gln Arg Gln  
 85 90 95  
 Ala Thr Lys Asp Ala Gly Thr Ile Ala Gly Leu Asn Val Leu Arg Ile  
 100 105 110  
 Ile Asn Glu Pro Thr Ala Ala Ala Ile Ala Tyr Gly Leu Asp Lys Lys  
 115 120 125  
 Val Gly Ala Glu Arg Asn Val Leu Ile Phe Asp Leu Gly Gly Gly Thr  
 130 135 140  
 Phe Asp Val Ser Ile Leu Thr Ile Glu Asp Gly Ile Phe Glu Val Lys  
 145 150 155 160  
 Ser Thr Ala Gly Asp Thr His Leu Gly Gly Glu Asp Phe Asp Asn Arg  
 165 170 175  
 Met Val Asn His Phe Ile Ala Glu Phe Lys Arg Lys His Lys Lys Asp  
 180 185 190  
 Ile Ser Glu Asn Lys Arg Ala Val Arg Arg Leu Arg Thr Ala Cys Glu  
 195 200 205  
 Arg Ala Lys Arg Thr Leu Ser Ser Ser Thr Gln Ala Ser Ile Glu Ile  
 210 215 220  
 Asp Ser Leu Tyr Glu Gly Ile Asp Phe Tyr Thr Ser Ile Thr Arg Ala  
 225 230 235 240  
 Arg Phe Glu Glu Leu Asn Ala Asp Leu Phe Arg Gly Thr Leu Asp Pro  
 245 250 255  
 Val Glu Lys Ala Leu Arg Asp Ala Lys Leu Asp Lys Ser Gln Ile His  
 260 265 270  
 Asp Ile Val Leu Val Gly Gly Ser Thr Arg Ile Pro Lys Ile Gln Lys  
 275 280 285

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Leu Leu Gln Asp Phe Phe Asn Gly Lys Glu Leu Asn Lys Ser Ile Asn
 290                      295                      300
Pro Asp Glu Ala Val Ala Tyr Gly Ala Ala Val Gln Ala Ala Ile Leu
305                      310                      315                      320
Ser Gly Asp Lys Ser Glu Asn Val Gln Asp Leu Leu Leu Leu Asp Val
                      325                      330                      335
Thr Pro Leu Ser Leu Gly Ile Glu Thr Ala Gly Gly Val Met Thr Val
                      340                      345                      350
Leu Ile Lys Arg Asn Thr Thr Ile Pro Thr Lys Gln Thr Gln Thr Phe
                      355                      360                      365
Thr Thr Tyr Ser Asp Asn Gln Pro Gly Val Leu Ile Gln Val Tyr Glu
                      370                      375                      380
Gly Glu Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly Lys Phe Glu
385                      390                      395                      400
Leu Thr Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val
                      405                      410                      415
Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser Ala Val Asp
                      420                      425                      430
Lys Ser Thr Gly Lys Glu Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly
                      435                      440                      445
Arg Leu Ser Lys Glu Asp Ile Glu Arg Met Val Gln Glu Ala Glu Lys
                      450                      455                      460
Tyr Lys Ala Glu Asp Glu Lys Gln Arg Asp Lys Val Ser Ser Lys Asn
465                      470                      475                      480
Ser Leu Glu Ser Tyr Ala Phe Asn Met Lys Ala Thr Val Glu Asp Glu
                      485                      490                      495
Lys Leu Gln Gly Lys Ile Asn Asp Glu Asp Lys Gln Lys Ile Leu Asp
                      500                      505                      510
Lys Cys Asn Glu Ile Ile Asn Trp Leu Asp Lys Asn Gln Thr Ala Glu
                      515                      520                      525
Lys Glu Glu Phe Glu His Gln Gln Lys Glu Leu Glu Lys Val Cys Asn
                      530                      535                      540
Pro Ile Ile Thr Lys Leu Tyr Gln Ser Ala Gly Gly Met Pro Gly Gly
545                      550                      555                      560
Met Pro Gly Gly Phe Pro Gly Gly Gly Ala Pro Pro Ser Gly Gly Ala
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Ser Ser Gly Pro Thr Ile Glu Glu Val Asp
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<210> 5
<211> 449
<212> PRT
<213> Homo sapiens

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Asp Cys Lys Ile Gln Asn Gly Thr Ser Gly Ile Arg Phe Ile Tyr Thr
                      35                      40                      45
Arg Glu Gly Arg Pro Ser Gly Glu Ala Phe Val Glu Leu Glu Ser Glu
                      50                      55                      60
Glu Glu Val Lys Leu Ala Leu Lys Lys Asp Arg Glu Thr Met Gly His
65                      70                      75                      80
Arg Tyr Val Glu Val Phe Lys Ser Asn Ser Val Glu Met Asp Trp Val
                      85                      90                      95

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Leu Lys His Thr Gly Pro Asn Ser Pro Asp Thr Ala Asn Asp Gly Phe  
                   100                  105                  110  
 Val Arg Leu Arg Gly Leu Pro Phe Gly Cys Ser Lys Glu Glu Ile Val  
                   115                  120                  125  
 Gln Phe Phe Ser Gly Leu Glu Ile Val Pro Asn Gly Met Thr Leu Pro  
                   130                  135                  140  
 Val Asp Phe Gln Gly Arg Ser Thr Gly Glu Ala Phe Val Gln Phe Ala  
                   145                  150                  155                  160  
 Ser Gln Glu Ile Ala Glu Lys Ala Leu Lys Lys His Lys Glu Arg Ile  
                   165                  170                  175  
 Gly His Arg Tyr Ile Glu Ile Phe Lys Ser Ser Arg Ala Glu Val Arg  
                   180                  185                  190  
 Thr His Tyr Asp Pro Pro Arg Lys Leu Met Ala Met Gln Arg Pro Gly  
                   195                  200                  205  
 Pro Tyr Asp Arg Pro Gly Ala Gly Arg Gly Tyr Asn Ser Ile Gly Arg  
                   210                  215                  220  
 Gly Ala Gly Phe Glu Arg Met Arg Arg Gly Ala Tyr Gly Gly Gly Tyr  
                   225                  230                  235                  240  
 Gly Gly Tyr Asp Asp Tyr Gly Gly Tyr Asn Asp Gly Tyr Gly Phe Gly  
                   245                  250                  255  
 Ser Asp Arg Phe Gly Arg Asp Leu Asn Tyr Cys Phe Ser Gly Met Ser  
                   260                  265                  270  
 Asp His Arg Tyr Gly Asp Gly Gly Ser Ser Phe Gln Ser Thr Thr Gly  
                   275                  280                  285  
 His Cys Val His Met Arg Gly Leu Pro Tyr Arg Ala Thr Glu Asn Asp  
                   290                  295                  300  
 Ile Tyr Asn Phe Phe Ser Pro Leu Asn Pro Met Arg Val His Ile Glu  
                   305                  310                  315                  320  
 Ile Gly Pro Asp Gly Arg Val Thr Gly Glu Ala Asp Val Glu Phe Ala  
                   325                  330                  335  
 Thr His Glu Asp Ala Val Ala Ala Met Ala Lys Asp Lys Ala Asn Met  
                   340                  345                  350  
 Gln His Arg Tyr Val Glu Leu Phe Leu Asn Ser Thr Ala Gly Thr Ser  
                   355                  360                  365  
 Gly Gly Ala Tyr Asp His Ser Tyr Val Glu Leu Phe Leu Asn Ser Thr  
                   370                  375                  380  
 Ala Gly Ala Ser Gly Gly Ala Tyr Gly Ser Gln Met Met Gly Gly Met  
                   385                  390                  395                  400  
 Gly Leu Ser Asn Gln Ser Ser Tyr Gly Gly Pro Ala Ser Gln Gln Leu  
                   405                  410                  415  
 Ser Gly Gly Tyr Gly Gly Gly Tyr Gly Gly Gln Ser Ser Met Ser Gly  
                   420                  425                  430  
 Tyr Asp Gln Val Leu Gln Glu Asn Ser Ser Asp Tyr Gln Ser Asn Leu  
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 Ala

<210> 6  
 <211> 1675  
 <212> PRT  
 <213> Homo sapiens

<400> 6  
 Met Ala Gln Ile Leu Pro Ile Arg Phe Gln Glu His Leu Gln Leu Gln  
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 Asn Leu Gly Ile Asn Pro Ala Asn Ile Gly Phe Ser Thr Leu Thr Met  
                   20                  25                  30

Glu	Ser	Asp	Lys	Phe	Ile	Cys	Ile	Arg	Glu	Lys	Val	Gly	Glu	Gln	Ala	35	40	45
Gln	Val	Val	Ile	Ile	Asp	Met	Asn	Asp	Pro	Ser	Asn	Pro	Ile	Arg	Arg	50	55	60
Pro	Ile	Ser	Ala	Asp	Ser	Ala	Ile	Met	Asn	Pro	Ala	Ser	Lys	Val	Ile	65	70	75
Ala	Leu	Lys	Ala	Gly	Lys	Thr	Leu	Gln	Ile	Phe	Asn	Ile	Glu	Met	Lys	80	85	90
Ser	Lys	Met	Lys	Ala	His	Thr	Met	Thr	Asp	Asp	Val	Thr	Phe	Trp	Lys	95	100	105
Trp	Ile	Ser	Leu	Asn	Thr	Val	Ala	Leu	Val	Thr	Asp	Asn	Ala	Val	Tyr	110	115	120
His	Trp	Ser	Met	Glu	Gly	Glu	Ser	Gln	Pro	Val	Lys	Met	Phe	Asp	Arg	125	130	135
His	Ser	Ser	Leu	Ala	Gly	Cys	Gln	Ile	Ile	Asn	Tyr	Arg	Thr	Asp	Ala	140	145	150
Lys	Gln	Lys	Trp	Leu	Leu	Leu	Thr	Gly	Ile	Ser	Ala	Gln	Gln	Asn	Arg	155	160	165
Val	Val	Gly	Ala	Met	Gln	Leu	Tyr	Ser	Val	Asp	Arg	Lys	Val	Ser	Gln	170	175	180
Pro	Ile	Glu	Gly	His	Ala	Ala	Ser	Phe	Ala	Gln	Phe	Lys	Met	Glu	Gly	185	190	195
Asn	Ala	Glu	Glu	Ser	Thr	Leu	Phe	Cys	Phe	Ala	Val	Arg	Gly	Gln	Ala	200	205	210
Gly	Gly	Lys	Leu	His	Ile	Ile	Glu	Val	Gly	Thr	Pro	Pro	Thr	Gly	Asn	215	220	225
Gln	Pro	Phe	Pro	Lys	Lys	Ala	Val	Asp	Val	Phe	Phe	Pro	Pro	Glu	Ala	230	235	240
Gln	Asn	Asp	Phe	Pro	Val	Ala	Met	Gln	Ile	Ser	Glu	Lys	His	Asp	Val	245	250	255
Val	Phe	Leu	Ile	Thr	Lys	Tyr	Gly	Tyr	Ile	His	Leu	Tyr	Asp	Leu	Glu	260	265	270
Thr	Gly	Thr	Cys	Ile	Tyr	Met	Asn	Arg	Ile	Ser	Gly	Glu	Thr	Ile	Phe	275	280	285
Val	Thr	Ala	Pro	His	Glu	Ala	Thr	Ala	Gly	Ile	Ile	Gly	Val	Asn	Arg	290	295	300
Lys	Gly	Gln	Val	Leu	Ser	Val	Cys	Val	Glu	Glu	Glu	Asn	Ile	Ile	Pro	305	310	315
Tyr	Ile	Thr	Asn	Val	Leu	Gln	Asn	Pro	Asp	Leu	Ala	Leu	Arg	Met	Ala	320	325	330
Val	Arg	Asn	Asn	Leu	Ala	Gly	Ala	Glu	Glu	Leu	Phe	Ala	Arg	Lys	Phe	335	340	345
Asn	Ala	Leu	Phe	Ala	Gln	Gly	Asn	Tyr	Ser	Glu	Ala	Ala	Lys	Val	Ala	350	355	360
Ala	Asn	Ala	Pro	Lys	Gly	Ile	Leu	Arg	Thr	Pro	Asp	Thr	Ile	Arg	Arg	365	370	375
Phe	Gln	Ser	Val	Pro	Ala	Gln	Pro	Gly	Gln	Thr	Ser	Pro	Leu	Leu	Gln	380	385	390
Tyr	Phe	Gly	Ile	Leu	Leu	Asp	Gln	Gly	Gln	Leu	Asn	Lys	Tyr	Glu	Ser	395	400	405
Leu	Glu	Leu	Cys	Arg	Pro	Val	Leu	Gln	Gln	Gly	Arg	Lys	Gln	Leu	Leu	410	415	420
Glu	Lys	Trp	Leu	Lys	Glu	Asp	Lys	Leu	Glu	Cys	Ser	Glu	Glu	Leu	Gly	425	430	435
Asp	Leu	Val	Lys	Ser	Val	Asp	Pro	Thr	Leu	Ala	Leu	Ser	Val	Tyr	Leu	440	445	450
Arg	Ala	Asn	Val	Pro	Asn	Lys	Val	Ile	Gln	Cys	Phe	Ala	Glu	Thr	Gly	455	460	465
																470	475	480



				485					490					495			
Gln	Val	Gln	Lys	Ile	Val	Leu	Tyr	Ala	Lys	Lys	Val	Gly	Tyr	Thr	Pro		
			500					505					510				
Asp	Trp	Ile	Phe	Leu	Leu	Arg	Asn	Val	Met	Arg	Ile	Ser	Pro	Asp	Gln		
		515					520					525					
Gly	Gln	Gln	Phe	Ala	Gln	Met	Leu	Val	Gln	Asp	Glu	Glu	Pro	Leu	Ala		
	530					535					540						
Asp	Ile	Thr	Gln	Ile	Val	Asp	Val	Phe	Met	Glu	Tyr	Asn	Leu	Ile	Gln		
545					550					555					560		
Gln	Cys	Thr	Ala	Phe	Leu	Leu	Asp	Ala	Leu	Lys	Asn	Asn	Arg	Pro	Ser		
				565					570					575			
Glu	Gly	Pro	Leu	Gln	Thr	Arg	Leu	Leu	Glu	Met	Asn	Leu	Met	His	Ala		
			580					585					590				
Pro	Gln	Val	Ala	Asp	Ala	Ile	Leu	Gly	Asn	Gln	Met	Phe	Thr	His	Tyr		
		595					600					605					
Asp	Arg	Ala	His	Ile	Ala	Gln	Leu	Cys	Glu	Lys	Ala	Gly	Leu	Leu	Gln		
	610					615					620						
Arg	Ala	Leu	Glu	His	Phe	Thr	Asp	Leu	Tyr	Asp	Ile	Lys	Arg	Ala	Val		
625					630					635					640		
Val	His	Thr	His	Leu	Leu	Asn	Pro	Glu	Trp	Leu	Val	Asn	Tyr	Phe	Gly		
				645					650					655			
Ser	Leu	Ser	Val	Glu	Asp	Ser	Leu	Glu	Cys	Leu	Arg	Ala	Met	Leu	Ser		
			660					665					670				
Ala	Asn	Ile	Arg	Gln	Asn	Leu	Gln	Ile	Cys	Val	Gln	Val	Ala	Ser	Lys		
		675					680					685					
Tyr	His	Glu	Gln	Leu	Ser	Thr	Gln	Ser	Leu	Ile	Glu	Leu	Phe	Glu	Ser		
	690					695					700						
Phe	Lys	Ser	Phe	Glu	Gly	Leu	Phe	Tyr	Phe	Leu	Gly	Ser	Ile	Val	Asn		
705					710					715					720		
Phe	Ser	Gln	Asp	Pro	Asp	Val	His	Phe	Lys	Tyr	Ile	Gln	Ala	Ala	Cys		
				725					730					735			
Lys	Thr	Gly	Gln	Ile	Lys	Glu	Val	Glu	Arg	Ile	Cys	Arg	Glu	Ser	Asn		
			740					745					750				
Cys	Tyr	Asp	Pro	Glu	Arg	Val	Lys	Asn	Phe	Leu	Lys	Glu	Ala	Lys	Leu		
		755					760					765					
Thr	Asp	Gln	Leu	Pro	Leu	Ile	Ile	Val	Cys	Asp	Arg	Phe	Asp	Phe	Val		
	770					775					780						
His	Asp	Leu	Val	Leu	Tyr	Leu	Tyr	Arg	Asn	Asn	Leu	Gln	Lys	Tyr	Ile		
785					790					795					800		
Glu	Ile	Tyr	Val	Gln	Lys	Val	Asn	Pro	Ser	Arg	Leu	Pro	Val	Val	Ile		
				805					810					815			
Gly	Gly	Leu	Leu	Asp	Val	Asp	Cys	Ser	Glu	Asp	Val	Ile	Lys	Asn	Leu		
		820						825					830				
Ile	Leu	Val	Val	Arg	Gly	Gln	Phe	Ser	Thr	Asp	Glu	Leu	Val	Ala	Glu		
		835					840					845					
Val	Glu	Lys	Arg	Asn	Arg	Leu	Lys	Leu	Leu	Leu	Pro	Trp	Leu	Glu	Ala		
	850					855					860						
Arg	Ile	His	Glu	Gly	Cys	Glu	Glu	Pro	Ala	Thr	His	Asn	Ala	Leu	Ala		
865					870					875					880		
Lys	Ile	Tyr	Ile	Asp	Ser	Asn	Asn	Asn	Pro	Glu	Arg	Phe	Leu	Arg	Glu		
				885					890					895			
Asn	Pro	Tyr	Tyr	Asp	Ser	Arg	Val	Val	Gly	Lys	Tyr	Cys	Glu	Lys	Arg		
		900						905					910				
Asp	Pro	His	Leu	Ala	Cys	Val	Ala	Tyr	Glu	Arg	Gly	Gln	Cys	Asp	Leu		
	915						920					925					
Glu	Leu	Ile	Asn	Val	Cys	Asn	Glu	Asn	Ser	Leu	Phe	Lys	Ser	Leu	Ser		
	930					935					940						

Arg Tyr Leu Val Arg Arg Lys Asp Pro Glu Leu Trp Gly Ser Val Leu  
 945 950 955 960  
 Leu Glu Ser Asn Pro Tyr Arg Arg Pro Leu Ile Asp Gln Val Val Gln  
 965 970 975  
 Thr Ala Leu Ser Glu Thr Gln Asp Pro Glu Glu Val Ser Val Thr Val  
 980 985 990  
 Lys Ala Phe Met Thr Ala Asp Leu Pro Asn Glu Leu Ile Glu Leu Leu  
 995 1000 1005  
 Glu Lys Ile Val Leu Asp Asn Ser Val Phe Ser Glu His Arg Asn Leu  
 1010 1015 1020  
 Gln Asn Leu Leu Ile Leu Thr Ala Ile Lys Ala Asp Arg Thr Arg Val  
 1025 1030 1035 1040  
 Met Glu Tyr Ile Asn Arg Leu Asp Asn Tyr Asp Ala Pro Asp Ile Ala  
 1045 1050 1055  
 Asn Ile Ala Ile Ser Asn Glu Leu Phe Glu Glu Ala Phe Ala Ile Phe  
 1060 1065 1070  
 Arg Lys Phe Asp Val Asn Thr Ser Ala Val Gln Val Leu Ile Glu His  
 1075 1080 1085  
 Ile Gly Asn Leu Asp Arg Ala Tyr Glu Phe Ala Glu Arg Cys Asn Glu  
 1090 1095 1100  
 Pro Ala Val Trp Ser Gln Leu Ala Lys Ala Gln Leu Gln Lys Gly Met  
 1105 1110 1115 1120  
 Val Lys Glu Ala Ile Asp Ser Tyr Ile Lys Ala Asp Asp Pro Ser Ser  
 1125 1130 1135  
 Tyr Met Glu Val Val Gln Ala Ala Asn Thr Ser Gly Asn Trp Glu Glu  
 1140 1145 1150  
 Leu Val Lys Tyr Leu Gln Met Ala Arg Lys Lys Ala Arg Glu Ser Tyr  
 1155 1160 1165  
 Val Glu Thr Glu Leu Ile Phe Ala Leu Ala Lys Thr Asn Arg Leu Ala  
 1170 1175 1180  
 Glu Leu Glu Glu Phe Ile Asn Gly Pro Asn Asn Ala His Ile Gln Gln  
 1185 1190 1195 1200  
 Val Gly Asp Arg Cys Tyr Asp Glu Lys Met Tyr Asp Ala Ala Lys Leu  
 1205 1210 1215  
 Leu Tyr Asn Asn Val Ser Asn Phe Gly Arg Leu Ala Ser Thr Leu Val  
 1220 1225 1230  
 His Leu Gly Glu Tyr Gln Ala Ala Val Asp Gly Ala Arg Lys Ala Asn  
 1235 1240 1245  
 Ser Thr Arg Thr Trp Lys Glu Val Cys Phe Ala Cys Val Asp Gly Lys  
 1250 1255 1260  
 Glu Phe Arg Leu Ala Gln Met Cys Gly Leu His Ile Val Val His Ala  
 1265 1270 1275 1280  
 Asp Glu Leu Glu Glu Leu Ile Asn Tyr Tyr Gln Asp Arg Gly Tyr Phe  
 1285 1290 1295  
 Glu Glu Leu Ile Thr Met Leu Glu Ala Ala Leu Gly Leu Glu Arg Ala  
 1300 1305 1310  
 His Met Gly Met Phe Thr Glu Leu Ala Ile Leu Tyr Ser Lys Phe Lys  
 1315 1320 1325  
 Pro Gln Lys Met Arg Glu His Leu Glu Leu Phe Trp Ser Arg Val Asn  
 1330 1335 1340  
 Ile Pro Lys Val Leu Arg Ala Ala Glu Gln Ala His Leu Trp Ala Glu  
 1345 1350 1355 1360  
 Leu Val Phe Leu Tyr Asp Lys Tyr Glu Glu Tyr Asp Asn Ala Ile Ile  
 1365 1370 1375  
 Thr Met Met Asn His Pro Thr Asp Ala Trp Lys Glu Gly Gln Phe Lys  
 1380 1385 1390  
 Asp Ile Ile Thr Lys Val Ala Asn Val Glu Leu Tyr Tyr Arg Ala Ile

1395	1400	1405
Gln Phe Tyr Leu Glu Phe Lys Pro Leu Leu Leu Asn Asp Leu Leu Met		
1410	1415	1420
Val Leu Ser Pro Arg Leu Asp His Thr Arg Ala Val Asn Tyr Phe Ser		
1425	1430	1435
Lys Val Lys Gln Leu Pro Leu Val Lys Pro Tyr Leu Arg Ser Val Gln		1440
	1445	1450
Asn His Asn Asn Lys Ser Val Asn Glu Ser Leu Asn Asn Leu Phe Ile		1455
	1460	1465
Thr Glu Glu Asp Tyr Gln Ala Leu Arg Thr Ser Ile Asp Ala Tyr Asp		1470
	1475	1480
Asn Phe Asp Asn Ile Ser Leu Ala Gln Arg Leu Glu Lys His Glu Leu		1485
1490	1495	1500
Ile Glu Phe Arg Arg Ile Ala Ala Tyr Leu Phe Lys Gly Asn Asn Arg		
1505	1510	1515
Trp Lys Gln Ser Val Glu Leu Cys Lys Lys Asp Ser Leu Tyr Lys Asp		1520
	1525	1530
Ala Met Gln Tyr Ala Ser Glu Ser Lys Asp Thr Glu Leu Ala Glu Glu		1535
	1540	1545
Leu Leu Gln Trp Phe Leu Gln Glu Glu Lys Arg Glu Cys Phe Gly Ala		1550
1555	1560	1565
Cys Leu Phe Thr Cys Tyr Asp Leu Leu Arg Pro Asp Val Val Leu Glu		
1570	1575	1580
Thr Ala Trp Arg His Asn Ile Met Asp Phe Ala Met Pro Tyr Phe Ile		
1585	1590	1595
Gln Val Met Lys Glu Tyr Leu Thr Lys Val Asp Lys Leu Asp Ala Ser		1600
	1605	1610
Glu Ser Leu Arg Lys Glu Glu Glu Gln Ala Thr Glu Thr Gln Pro Ile		1615
	1620	1625
Val Tyr Gly Gln Pro Gln Leu Met Leu Thr Ala Gly Pro Ser Val Ala		1630
1635	1640	1645
Val Pro Pro Gln Ala Pro Phe Gly Tyr Gly Tyr Thr Ala Pro Pro Tyr		
1650	1655	1660
Gly Gln Pro Gln Pro Gly Phe Gly Tyr Ser Met		
1665	1670	1675

&lt;210&gt; 7

&lt;211&gt; 903

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 7

Met Ala Ile Gln Phe Arg Ser Leu Phe Pro Leu Ala Leu Pro Gly Met	
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Leu Ala Leu Leu Gly Trp Trp Trp Phe Phe Ser Arg Lys Lys Gly His	10
	15
	20
Val Ser Ser His Asp Glu Gln Gln Val Glu Ala Gly Ala Val Gln Leu	25
	30
	35
Arg Ala Asp Pro Ala Ile Lys Glu Pro Leu Pro Val Glu Asp Val Cys	40
	45
	50
Pro Lys Val Val Ser Thr Pro Pro Ser Val Thr Glu Pro Pro Glu Lys	55
	60
	65
Glu Leu Ser Thr Val Ser Lys Leu Pro Ala Glu Pro Pro Ala Leu Leu	70
	75
	80
	85
Gln Thr His Pro Pro Cys Arg Arg Ser Glu Ser Ser Gly Ile Leu Pro	90
	95
	100
Asn Thr Thr Asp Met Arg Leu Arg Pro Gly Thr Arg Arg Asp Asp Ser	105
	110

	115		120		125														
Thr	Lys	Leu	Glu	Leu	Ala	Leu	Thr	Gly	Gly	Glu	Ala	Lys	Ser	Ile	Pro				
	130						135				140								
Leu	Glu	Cys	Pro	Leu	Ser	Ser	Pro	Lys	Gly	Val	Leu	Phe	Ser	Ser	Lys				
145					150					155					160				
Ser	Ala	Glu	Val	Cys	Lys	Gln	Asp	Ser	Pro	Phe	Ser	Arg	Val	Pro	Arg				
				165					170					175					
Lys	Val	Gln	Pro	Gly	Tyr	Pro	Val	Val	Pro	Ala	Glu	Lys	Arg	Ser	Ser				
			180					185					190						
Gly	Glu	Arg	Ala	Arg	Glu	Thr	Gly	Gly	Ala	Glu	Gly	Thr	Gly	Asp	Ala				
		195					200					205							
Val	Leu	Gly	Glu	Lys	Val	Leu	Glu	Glu	Ala	Leu	Leu	Ser	Arg	Glu	His				
	210					215					220								
Val	Leu	Glu	Leu	Glu	Asn	Ser	Lys	Gly	Pro	Ser	Leu	Ala	Ser	Leu	Glu				
225					230					235					240				
Gly	Glu	Glu	Asp	Lys	Gly	Lys	Ser	Ser	Ser	Ser	Gln	Val	Val	Gly	Pro				
				245				250						255					
Val	Gln	Glu	Glu	Glu	Tyr	Val	Ala	Glu	Lys	Leu	Pro	Ser	Arg	Phe	Ile				
			260				265						270						
Glu	Ser	Ala	His	Thr	Glu	Leu	Ala	Lys	Asp	Asp	Ala	Ala	Pro	Ala	Pro				
	275					280					285								
Pro	Val	Ala	Asp	Ala	Lys	Ala	Gln	Asp	Arg	Gly	Val	Glu	Gly	Glu	Leu				
	290					295					300								
Gly	Asn	Glu	Glu	Ser	Leu	Asp	Arg	Asn	Glu	Glu	Gly	Leu	Asp	Arg	Asn				
305					310					315					320				
Glu	Glu	Gly	Leu	Asp	Arg	Asn	Glu	Glu	Ser	Leu	Asp	Arg	Asn	Glu	Glu				
				325				330						335					
Gly	Leu	Asp	Arg	Asn	Glu	Glu	Ile	Lys	Arg	Ala	Ala	Phe	Gln	Ile	Ile				
		340					345					350							
Ser	Gln	Val	Ile	Ser	Glu	Ala	Thr	Glu	Gln	Val	Leu	Ala	Thr	Thr	Val				
	355					360					365								
Gly	Lys	Val	Ala	Gly	Arg	Val	Cys	Gln	Ala	Ser	Gln	Leu	Gln	Gly	Gln				
	370				375					380									
Lys	Glu	Glu	Ser	Cys	Val	Pro	Val	His	Gln	Lys	Thr	Val	Leu	Gly	Pro				
385					390					395					400				
Asp	Thr	Ala	Glu	Pro	Ala	Thr	Ala	Glu	Ala	Ala	Val	Ala	Pro	Pro	Asp				
				405				410					415						
Ala	Gly	Leu	Pro	Leu	Pro	Gly	Leu	Pro	Ala	Glu	Gly	Ser	Pro	Pro	Pro				
		420					425					430							
Lys	Thr	Tyr	Val	Ser	Cys	Leu	Lys	Ser	Leu	Leu	Ser	Ser	Pro	Thr	Lys				
	435					440					445								
Asp	Ser	Lys	Pro	Asn	Ile	Ser	Ala	His	His	Ile	Ser	Leu	Ala	Ser	Cys				
	450					455					460								
Leu	Ala	Leu	Thr	Thr	Pro	Ser	Glu	Glu	Leu	Pro	Asp	Arg	Ala	Gly	Ile				
465					470					475					480				
Leu	Val	Glu	Asp	Ala	Thr	Cys	Val	Thr	Cys	Met	Ser	Asp	Ser	Ser	Gln				
				485				490					495						
Ser	Val	Pro	Leu	Val	Ala	Ser	Pro	Gly	His	Cys	Ser	Asp	Ser	Phe	Ser				
		500					505					510							
Thr	Ser	Gly	Leu	Glu	Asp	Ser	Cys	Thr	Glu	Thr	Ser	Ser	Ser	Pro	Arg				
	515					520					525								
Asp	Lys	Ala	Ile	Thr	Pro	Pro	Leu	Pro	Glu	Ser	Thr	Val	Pro	Phe	Ser				
	530					535					540								
Asn	Gly	Val	Leu	Lys	Gly	Glu	Leu	Ser	Asp	Leu	Gly	Ala	Glu	Asp	Gly				
545					550					555					560				
Trp	Thr	Met	Asp	Ala	Glu	Ala	Asp	His	Ser	Gly	Gly	Ser	Asp	Arg	Asn				
				565				570						575					

Ser Met Asp Ser Val Asp Ser Cys Cys Ser Leu Lys Lys Thr Glu Ser  
 580 585 590  
 Phe Gln Asn Ala Gln Ala Gly Ser Asn Pro Lys Lys Val Asp Leu Ile  
 595 600 605  
 Ile Trp Glu Ile Glu Val Pro Lys His Leu Val Gly Arg Leu Ile Gly  
 610 615 620  
 Lys Gln Gly Arg Tyr Val Ser Phe Leu Lys Gln Thr Ser Gly Ala Lys  
 625 630 635 640  
 Ile Tyr Ile Ser Thr Leu Pro Tyr Thr Gln Ser Val Gln Ile Cys His  
 645 650 655  
 Ile Glu Gly Ser Gln His His Val Asp Lys Ala Leu Asn Leu Ile Gly  
 660 665 670  
 Lys Lys Phe Lys Glu Leu Asn Leu Thr Asn Ile Tyr Ala Pro Pro Leu  
 675 680 685  
 Pro Ser Leu Ala Leu Pro Ser Leu Pro Met Thr Ser Trp Leu Met Leu  
 690 695 700  
 Pro Asp Gly Ile Thr Val Glu Val Ile Val Val Asn Gln Val Asn Ala  
 705 710 715 720  
 Gly His Leu Phe Val Gln Gln His Thr His Pro Thr Phe His Ala Leu  
 725 730 735  
 Arg Ser Leu Asp Gln Gln Met Tyr Leu Cys Tyr Ser Gln Pro Gly Ile  
 740 745 750  
 Pro Thr Leu Pro Thr Pro Val Glu Ile Thr Val Ile Cys Ala Ala Pro  
 755 760 765  
 Gly Ala Asp Gly Ala Trp Trp Arg Ala Gln Val Val Ala Ser Tyr Glu  
 770 775 780  
 Glu Thr Asn Glu Val Glu Ile Arg Tyr Val Asp Tyr Gly Gly Tyr Lys  
 785 790 795 800  
 Arg Val Lys Val Asp Val Leu Arg Gln Ile Arg Ser Asp Phe Val Thr  
 805 810 815  
 Leu Pro Phe Gln Gly Ala Glu Val Leu Leu Asp Ser Val Met Pro Leu  
 820 825 830  
 Ser Asp Asp Asp Gln Phe Ser Pro Glu Ala Asp Ala Ala Met Ser Glu  
 835 840 845  
 Met Thr Gly Asn Thr Ala Leu Leu Ala Gln Val Thr Ser Tyr Ser Pro  
 850 855 860  
 Thr Gly Leu Pro Leu Ile Gln Leu Trp Ser Val Val Gly Asp Glu Val  
 865 870 875 880  
 Val Leu Ile Asn Arg Ser Leu Val Glu Arg Gly Leu Ala Gln Trp Val  
 885 890 895  
 Asp Ser Tyr Tyr Thr Ser Leu  
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<210> 8

<211> 197

<212> PRT

<213> Homo sapiens

<400> 8

Met Met Phe Pro Gln Ser Arg His Ser Gly Ser Ser His Leu Pro Gln  
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 Gln Leu Lys Phe Thr Thr Ser Asp Ser Cys Asp Arg Ile Thr Asp Glu  
 20 25 30  
 Phe Gln Leu Leu Gln Ala Gln Tyr His Ser Leu Lys Leu Glu Cys Asp  
 35 40 45  
 Lys Leu Ala Ser Glu Lys Ser Glu Met Gln Arg His Tyr Val Met Tyr  
 50 55 60

Tyr Glu Met Ser Tyr Gly Leu Asn Ile Glu Met His Lys Gln Ala Glu  
 65 70 75 80  
 Ile Val Lys Arg Leu Asn Gly Ile Cys Ala Gln Val Leu Pro Tyr Leu  
 85 90 95  
 Ser Gln Glu His Gln Gln Gln Val Leu Gly Ala Ile Glu Arg Ala Lys  
 100 105 110  
 Gln Val Thr Ala Pro Glu Leu Asn Ser Ile Ile Arg Gln Gln Leu Gln  
 115 120 125  
 Ala His Gln Leu Ser Gln Leu Gln Ala Leu Ala Leu Pro Leu Thr Pro  
 130 135 140  
 Leu Pro Val Gly Leu Gln Pro Pro Ser Leu Pro Ala Val Ser Ala Gly  
 145 150 155 160  
 Thr Gly Leu Leu Ser Leu Ser Ala Leu Gly Ser Gln Ala His Leu Ser  
 165 170 175  
 Lys Glu Asp Lys Asn Gly His Asp Gly Asp Thr His Gln Glu Asp Asp  
 180 185 190  
 Gly Glu Lys Ser Asp  
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 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer

<400> 9  
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33

<210> 10  
 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
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<400> 10  
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33

<210> 11  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer

<400> 11  
 taatacgact cactataggg

20

<210> 12  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> PCR primer

<400> 12

agggcgtgaa tgtaagcgt